Z97 Extreme6

Intel® Z97 Chipset

Product Brief

- ASRock Super Alloy
  XXL Aluminum Alloy Heatsink
  Premium Alloy Choke (Reduces 70% core loss compared to iron powder choke)
  Dual-Stack MOSFET (DSM)
  NexFET™ MOSFET
  12K Platinum Caps (100% Japan made high quality conductive polymer capacitors)
  Sapphire Black PCB
- Supports 5th Generation, New 4th and 4th Generation Intel® Core™ i7/i5/i3/Pentium®/Celeron® Processors (Socket 1150)
- Digi Power, 12 Power Phase design
- Supports Dual Channel DDR3 3200+(OC), 15μ Gold Contact in DIMM Slots
- 2 PCIe 3.0 x16, 1 PCIe 2.0 x16, 2 PCIe 2.0 x1, 1 mini-PCIe, 15μ Gold Contact in VGA PCIe Slot (PCIE2)
- Supports AMD Quad CrossFireX™ and NVIDIA® Quad SLI™
- Graphics Output Options: DVI-I, HDMI, DisplayPort
- 7.1 CH HD Audio with Content Protection (Realtek ALC1150 Audio Codec), Supports Purity Sound™ 2 & DTS Connect
- Dual LAN: 1 Intel® Gigabit LAN, 1 Realtek Gigabit LAN
- 1 SATA Express, 10 SATA3, 1 eSATA, 1 Ultra M.2 (Gen3 x4), 1 M.2 (Gen2 x2/SATA), 10 USB 3.0 (4 Front, 6 Rear), 5 USB 2.0 (4 Front, 1 Vertical Type A)
- 1 COM Port Header, 1 Thunderbolt AIC Connector
- Supports ASRock HDD Saver Technology, Full Spike Protection, ASRock Cloud, APP Shop, ASRock A-Tuning, Full HD UEFI

Super Alloy Motherboard Stable and Reliable

Ultra M.2 GEN3 X4

SATA EXPRESS

ASRock APP SHOP

Purity Sound™ 2

Orbweb ME Professional USD$ 49.99 1-year subscription

ASRock Cloud FREE

HDD Saver

15μ Gold Contact in DIMM & VGA PCIe Slot (PCIE2)

mini-PCIe Slot

Detail Specification

Platform	- ATX Form Factor - High Density Glass Fabric PCB
Unique Feature	ASRock Super Alloy - XXL Aluminum Alloy Heatsink - Premium Alloy Choke (Reduces 70% core loss compared to iron powder choke) - Dual-Stack MOSFET (DSM) - NexFET™ MOSFET - 12K Platinum Caps (100% Japan made high quality conductive polymer capacitors) - Sapphire Black PCB ASRock Ultra M.2 (PCIe Gen3 x4) ASRock HDD Saver Technology ASRock Full Spike Protection ASRock Cloud ASRock APP Shop
CPU	- Supports 5th Generation, New 4th and 4th Generation Intel® Core™ i7/i5/i3/Pentium®/Celeron® Processors (Socket 1150) - Digi Power design - 12 Power Phase design - Supports Intel® Turbo Boost 2.0 Technology - Supports Intel® K-Series unlocked CPUs - Supports ASRock BCLK Full-range Overclocking
Chipset	- Intel® Z97
Memory	- Dual Channel DDR3 Memory Technology - 4 x DDR3 DIMM Slots - Supports DDR3 3200+(OC)/2933(OC)/2800(OC)/2400(OC)/2133(OC)/1866(OC)/1600/1333/1066 non-ECC, un-buffered memory - Max. capacity of system memory: 32GB - Supports Intel® Extreme Memory Profile (XMP) 1.3 / 1.2 - 15μ Gold Contact in DIMM Slots
Expansion Slot	- 2 x PCI Express 3.0 x16 Slots (PCIE2/PCIE4: single at x16 (PCIE2); dual at x8 (PCIE2) / x8 (PCIE4)) * If M2_1 slot is occupied, PCIE2 slot will run at x8 mode, and PCIE4 slot will run at x4 mode. - 1 x PCI Express 2.0 x16 slot (PCIE5: x2 mode) - 2 x PCI Express 2.0 x1 Slots - 1 x mini-PCI Express Slot * mini-PCI Express slot is shared with PCIE3 slot. - Supports AMD Quad CrossFireX™ and CrossFireX™ - Supports NVIDIA® Quad SLI™ and SLI™ - 15μ Gold Contact in VGA PCIe Slot (PCIE2)
Graphics	* Intel® HD Graphics Built-in Visuals and the VGA outputs can be supported only with processors which are GPU integrated. - Supports Intel® HD Graphics Built-in Visuals : Intel® Quick Sync Video with AVC, MVC (S3D) and MPEG-2 Full HW Encode1, Intel® InTru™ 3D, Intel® Clear Video HD Technology, Intel® Insider™, Intel® HD Graphics 4400/4600 - Pixel Shader 5.0, DirectX 11.1 - Max. shared memory 1792MB - Three graphics output options: DVI-I, HDMI and DisplayPort 1.2 - Supports Triple Monitor - Supports HDMI with max. resolution up to 4K x 2K (4096x2304) @ 24Hz - Supports DVI-I with max. resolution up to 1920x1200 @ 60Hz - Supports DisplayPort 1.2 with max. resolution up to 4K x 2K (4096x2304) @ 24Hz or 4K x 2K (3840x2160) @ 60Hz - Supports Auto Lip Sync, Deep Color (12bpc), xvYCC and HBR(High Bit Rate Audio) with HDMI Port (Compliant HDMI monitor is required) - Supports HDCP with DVI-I, HDMI and DisplayPort 1.2 Ports - Supports Full HD 1080p Blu-ray (BD) playback with DVI-I, HDMI and DisplayPort 1.2 Ports
Audio	- 7.1 CH HD Audio with Content Protection (Realtek ALC1150 Audio Codec) - Premium Blu-ray Audio support - Supports Surge Protection (ASRock Full Spike Protection) - Supports Purity Sound™ 2 - Nichicon Fine Gold Series Audio Caps - 115dB SNR DAC with Differential Amplifier - TI® NE5532 Premium Headset Amplifier (Supports up to 600 Ohm headsets) - Direct Drive Technology - EMI Shielding Cover - PCB Isolate Shielding - Supports DTS Connect
LAN	- 1 x Intel® I218V (Gigabit LAN PHY 10/100/1000 Mb/s) - 1 x Realtek RTL8111GR (PCIE x1 Gigabit LAN 10/100/1000 Mb/s) - Supports Intel® Remote Wake Technology (on Intel® I218V) - Supports Wake-On-WAN (on Realtek RTL8111GR) - Supports Wake-On-LAN - Supports Lightning/ESD Protection (ASRock Full Spike Protection) - Supports LAN Cable Detection (on Realtek RTL8111GR) - Supports Energy Efficient Ethernet 802.3az - Supports PXE

Rear Panel I/O	- 1 x PS/2 Mouse/Keyboard Port - 1 x DVI-I Port - 1 x HDMI Port - 1 x DisplayPort 1.2 - 1 x Optical SPDIF Out Port - 1 x eSATA Connector - 2 x USB 3.0 Ports (ASMedia ASM1042AE) (Supports ESD Protection (ASRock Full Spike Protection)) - 4 x USB 3.0 Ports (Intel® Z97) (Supports ESD Protection (ASRock Full Spike Protection)) - 2 x RJ-45 LAN Ports with LED (ACT/LINK LED and SPEED LED) - 1 x Clear CMOS Switch - HD Audio Jacks: Rear Speaker / Central / Bass / Line in / Front Speaker / Microphone
Storage	- 6 x SATA3 6.0 Gb/s Connectors by Intel® Z97, support RAID (RAID 0, RAID 1, RAID 5, RAID 10, Intel Rapid Storage Technology 13 and Intel Smart Response Technology), NCQ, AHCI, Hot Plug and ASRock HDD Saver Technology - 4 x SATA3 6.0 Gb/s Connectors by ASMedia ASM1061, support NCQ, AHCI, Hot Plug and ASRock HDD Saver Technology (SATA3_A4 connector is shared with the eSATA port) - 1 x SATA Express Connector (shared with SATA3_4, SATA3_5 and M.2 Socket (M2_2)) * Support to be announced - 1 x eSATA Connector by ASMedia ASM1061, supports NCQ, AHCI and Hot Plug - 1 x Ultra M.2 Socket (M2_1), supports M.2 PCI Express module up to Gen3 x4 (32 Gb/s) - 1 x M.2_SSD (NGFF) Socket 3 (M2_2), supports M.2 SATA3 6.0 Gb/s module and M.2 PCI Express module up to Gen2 x2 (10 Gb/s)
Connector	- 1 x COM Port Header - 1 x TPM Header - 1 x Power LED Header - 2 x CPU Fan Connectors (1 x 4-pin, 1 x 3-pin) - 3 x Chassis Fan Connectors (1 x 4-pin, 2 x 3-pin) - 1 x Power Fan Connector (3-pin) - 1 x 24 pin ATX Power Connector - 1 x 8 pin 12V Power Connector (Hi-Density Power Connector) - 1 x HDD Saver Connector - 1 x PCIe Power Connector - 1 x Front Panel Audio Connector - 1 x Thunderbolt AIC Connector - 2 x USB 2.0 Headers (support 4 USB 2.0 ports) (Supports ESD Protection (ASRock Full Spike Protection)) - 1 x Vertical Type A USB 2.0 - 2 x USB 3.0 Headers (support 4 USB 3.0 ports) (Supports ESD Protection (ASRock Full Spike Protection)) - 1 x Dr. Debug with LED - 1 x Power Switch with LED - 1 x Reset Switch with LED - 1 x BIOS Selection Switch
BIOS Feature	- 2 x 64Mb AMI UEFI Legal BIOS with multilingual GUI support (1 x Main BIOS and 1 x Backup BIOS) - Supports Secure Backup UEFI Technology - ACPI 1.1 Compliant wake up events - SMBIOS 2.3.1 Support - CPU, DRAM, PCH 1.05V, PCH 1.5V Voltage Multi-adjustment
Support CD	- Drivers, Utilities, AntiVirus Software (Trial Version), Google Chrome Browser and Toolbar, Start8 (30 days trial), Orbweb.ME Professional
Software and UEFI	Software - ASRock A-Tuning - ASRock Disk Health Report - ASRock USB Key - ASRock APP Charger - ASRock XFast LAN - ASRock XFast RAM - ASRock Restart to UEFI UEFI - ASRock Full HD UEFI - ASRock My Favorites in UEFI - ASRock UEFI Guide - ASRock Instant Flash - ASRock Internet Flash - ASRock Crashless BIOS - ASRock OMG (Online Management Guard) - ASRock UEFI System Browser - ASRock UEFI Tech Service - ASRock Dehumidifier - ASRock Easy RAID Installer - ASRock Easy Driver Installer
Hardware Monitor	- CPU/Chassis temperature sensing - CPU/Chassis/Power Fan Tachometer - CPU/Chassis Quiet Fan (Auto adjust chassis fan speed by CPU temperature) - CPU/Chassis Fan multi-speed control - Voltage monitoring: +12V, +5V, +3.3V, CPU Input Voltage, CPU Internal Voltages
OS	- Microsoft® Windows® 8.1 32-bit / 8.1 64-bit / 8 32-bit / 8 64-bit / 7 32-bit / 7 64-bit
Certifications	- FCC, CE, WHQL - ErP/EuP ready (ErP/EuP ready power supply is required)
Accessories	- 1 x ASRock SLI_Bridge_2S Card - Quick Installation Guide, Support CD, I/O Shield - 4 x SATA Data Cables - 1 x HDD Saver Cable - 2 x Screws for M.2 Sockets - 1 x Screw for mini-PCIe Slot

The specification is subject to change without notice. The brand and product names are trademarks of their respective companies. Any configuration other than the original product specification is not guaranteed.

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Intel® Z97 Chipset

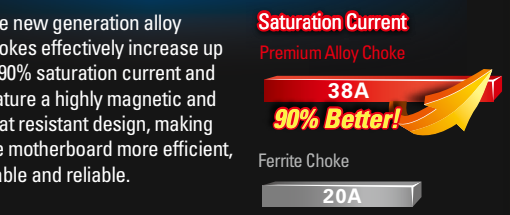
ASRock

Super Alloy Motherboard

Stable and Reliable

Premium Alloy Choke

The new generation alloy chokes effectively increase up to 90% saturation current and feature a highly magnetic and heat resistant design, making the motherboard more efficient, stable and reliable.



12K Platinum Caps

Supreme 12K platinum caps! The industry's longest lifespan - 12,000 hours.*

* Tested under industry standard 105 degree Celsius ambient temperature.

NexFET MOSFET for Memory Power

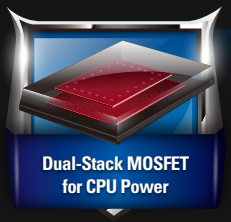
The next generation NexFET MOSFETs provide lower Rds(on) 2.9 mΩ, delivering higher efficiency and lower temperature.

XXL Aluminum Alloy Heatsink Design

The extra large aluminum alloy heatsinks dramatically take away heat and cool down MOSFETs, chipsets.

Sapphire Black PCB

Pure black PCB appearance. The new Sapphire Black PCB represents rock-solid quality and gives the motherboard a more mysterious touch.



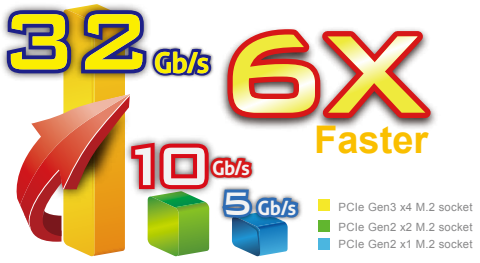
Dual-Stack MOSFET for CPU Power

Stacking two silicon dies into one MOSFET, DSM provides larger die area and extreme low Rds(on) 1.2 mΩ, so the power supply for the CPU Vcore is more efficient.

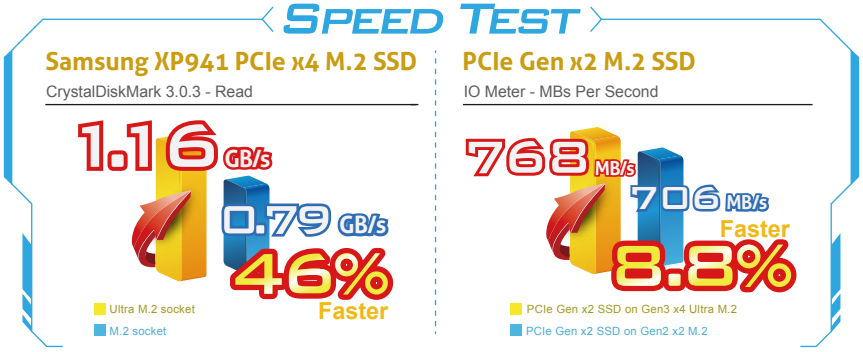
Ultra M.2 The World's Fastest M.2 Socket - PCIe Gen3 x4

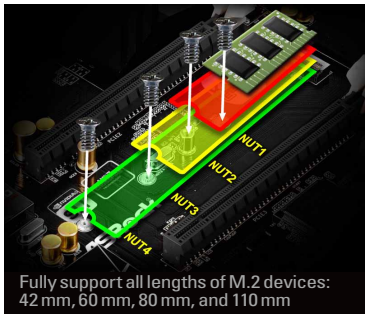
Ultra M.2 GEN3 X4

The onboard M.2 socket is a new interface for connecting Next Generation Form Factor (NGFF) SSDs or other devices. ASRock is the first in the world to implement PCIe Gen3 x4 M.2 socket on motherboards. The ultimate Ultra M.2 interface pushes the speed up to 32Gb/s which is 6X faster compared to other M.2 Gen2 x1 solutions that are limited to 5Gb/s.

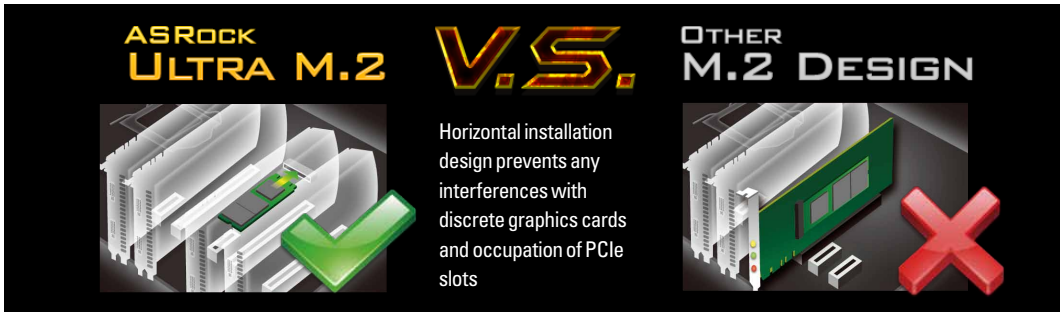


Speed Test





Fully support all lengths of M.2 devices: 42 mm, 60 mm, 80 mm, and 110 mm


ASRock Ultra M.2
V.S.
Other M.2 Design
Horizontal installation design prevents any interferences with discrete graphics cards and occupation of PCIe slots

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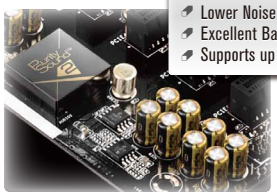
Purity Sound™ 2

Purity Sound™ 2 includes 7.1 CH HD audio with Realtek ALC1150 audio codec, 115dB SNR DAC with Differential Amplifier, cap less Direct Drive technology, EMI shielding cover, PCB isolate shielding and DTS Connect. As Nichicon audio capacitors are what every audiophile has been longing for on a PC, ASRock applied these high quality capacitors for Purity Sound™ 2.



Purity Sound™ 2 brings you:

- 115dB SNR
- Lower Noise
- Excellent Bass For All Headphones
- Supports up to 600ohm Headphones

ASRock Cloud

ASRock Cloud* technology makes your mobile devices connect to your PC seamlessly! We offer a one-year subscription to Orbweb.ME Professional version, a personal cloud service which is $49.99 per year. It allows you to get connected with your PC's files, music, photos, and video clips remotely with tablets anytime, anywhere. Plus an additional one-month upgrade to Orbweb.ME Ultimate package with Remote Desktop function.

* OrbWeb ME is provided by a third party. Restriction may apply and the offer is subject to change, termination or discontinuation by the third party without prior notice. Please visit the website for further details: http://www.asrock.com/feature/cloud/index.html

ASRock APP Shop

We provide various apps and support software for users to download. You can easily optimize your system and keep your motherboard up to date with ASRock APP Shop.

15μ Gold Contact in DIMM & VGA PCIe Slot (PCIE2)

Unlike other motherboards come with only 3-4μ gold contact, this motherboard is coated with 15μ gold contact in the DRAM slots and PCIe x16 slot, thus providing better anti-oxidation protection than usual.

Digi Power

By adopting digital Pulse-width modulation (PWM), the ASRock motherboard can provide CPU Vcore voltage more efficiently and smoothly.

SATA Express Connector

The SATA Express* interface provides PCIe Gen2 x2 (10Gb/s) data transfer speed. This motherboard offers the latest SATA Express connector to enthusiasts to enjoy the ultimate performance.

* Support to be announced.

HDD Saver Technology

There's a dedicated 4-pin HDD Saver Connector placed near the SATA ports. By connecting it to the HDDs, you can shut down or turn on the HDDs via software when needed. HDD Saver Technology secures more privacy, saves more energy, and extends HDD life.

mini-PCIe Slot

The mini-PCIe slot is a convenient peripheral interface that can be used for connecting WiFi card.

Dual LAN

Dual Gigabit LAN – This motherboard provides two gigabit LAN ports, Intel® I218V & Realtek RTL8111GR.

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